



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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July 18, 1995

TO: Minerals File

FROM: Tony Gallegos, Reclamation Engineer *aa*

RE: Site Inspection, Nuclear Fuel Services, Lucky Strike/Tony M Mine, M/017/001, Garfield County, Utah

Date of Inspection: May 3, 1995  
Time of Inspection: 1525 - 1730  
Conditions: Warm, partly cloudy  
Participants: Al Dearth, Daryl Winters, Nuclear Fuel Services; Wayne Hedberg, Tony Gallegos, DOGM

Purpose of Inspection: To evaluate the accuracy of the Division's reclamation estimate and evaluate the reclamation that has been performed

We first drove to the Lucky Strike area. We parked at the bottom of the access road leading up to the Lucky Strike portal area. Several pieces of equipment from the Tony M mine are stored here near the base of the access road. The access road up to the portal area is currently impassable due to erosion gullies. This road has been undisturbed for over 10 years and has achieved a reasonable state of stability through natural revegetation. A pressurized water tank is located adjacent to the lower portion of the access road. We walked up to the portal area. The road switchback offers a good vantage point for viewing a majority of the Tony M mine facilities.

The Lucky Strike portal area includes nine portal openings along a east to west running face. The mine openings all lead south into the face. The first four portals (from east to west) connect in pairs a short distance inside and continue underground for a considerable distance. The fifth portal appears to angle towards the sixth portal a short distance inside. The seventh portal goes in for approximately 25 feet before ending. The eighth portal appears to continue beyond 25 feet for an unknown distance. The ninth portal was a powder shack. Remnants of ammonium nitrate and igniter cord were found in the ninth portal. There is a level pad area in front of portals one through four. Portals five through nine are below the pad level and have a long mound of earthen material piled up immediately in front of the openings. The highwall above portals 1-4 is nearly vertical and it contains a lot of loose rock. The highwall angle decreases as you move to the west over the other portals. The reclamation issues at the Lucky Strike portal area are: (1) Is the operator required to reclaim/close these portals? (2) If so, what are the specific reclamation requirements for these open portals? (3) Given the hazard of the steep highwall and loose rock over portals 1-4, how



could these portals be closed effectively and safely? (4) Portals 5-9 could be safely backfilled using the mound of material on site, if equipment could get up to the site. (5) Given that the road has revegetated naturally, is it acceptable to regrade the road and destroy the vegetation for equipment access to the portal area?

Mr. Dearth indicated he would check into the records and files available to determine what work, if any, was done at the portals and when it was performed. The Division will also reviewed the files for similar information. The files do include a variance from reclamation requirements for the Lucky Strike Dumps.

Photographs were taken of the portals, highwall, pad, and access road. Photographs were also taken of the Tony M facilities from this vantage point. Visible from this point are three ore stockpiles along the Shitamaring Canyon road leading to the north. There are three stockpiles because of three different royalty requirements. The largest stockpile is located on what was the old camp area. Powerlines cross the Lucky Strike site and lead to a ventilation borehole above the highwall area. We did not visit that borehole area.

We next drove back to the Tony M facilities area (see copy of "Tony M Mine Portal Facility Layout" map). The main mine facilities are enclosed in a fence with a locked gate at the guard station. The site has been in a state of suspension/standby since 1983(?). The road passing the site is a county road which eventually connects with the Star Springs Road. We first visited the test plot area located just off the road leading to the powder magazines. These test plots were made using adjacent mine waste. Revegetation success in the mine waste is poor. These test plots were irrigated for some period of time, but details describing the test plots are unknown at this time. Division files will need to be reviewed for information describing the test plots. The following vegetation was noted on the test plots: shadscale, fourwing saltbush, indian ricegrass, astragalus spp., broomtail snakeweed(?), cheatgrass and a few other annual weedy species (pickweed?). The stockpiled material to the north of the test plots is mine waste.

The two powder magazines located west of the test plot areas were examined next. The approximate dimensions of the first (southernmost) magazine is: 15'W by 25'L by 7'H and made of @ 10" thick reinforced concrete. The second magazine is an excavated entry into the sandstone cliff face. Internal dimensions were not be determined. Both magazines were empty and the doors were propped open.

We then proceeded to the main portal and ore bin areas. The 2 main concrete-lined portals are currently covered with locked gates. One portal has a side opening where a fan was installed. Immediately adjacent (southwest) to this entry is a fenced off area with 4-5 smaller portals/prospects. A splashpool area occurs at the base of the highwall, where ephemeral surface runoff drains off the slickrock from a watershed area above the portals. It appears that any ponded water would drain back into the mine through the side fan portal entry. Mr. Dearth indicated the main portals are driven approximately 2 miles underground with about 18 miles of internal crosscuts. A large rock has fallen on the metal stairway associated with the ore monitoring/probe booth located between the 2 main entries. A concrete pad with assorted pipes was the site of an air compressor.

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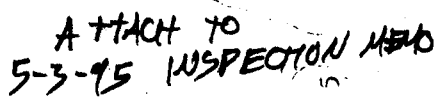
The compressor was moved to the main buildings (mine office/shop, etc.) located below the upper main entry pad area. The concrete ore bins were created to stockpile ores separately to accommodate the different royalty situations. Three underground tanks are present at the fuel and lubricant station shown on the map. Mr. Winters described the tanks as one 18,000 gallon diesel tank, one 9,000 gallon 30WT oil tank, and one 9,000 gallon 10WT oil tank. The tanks have apparently been emptied. Above this area are two above ground water tanks (one white and one brown). Behind these tanks are a series of 10-12 portals/prospects that vary in size and depth. A few appear to interconnect a short distance inside the portal entrances. None are fenced/closed and are likely pre-law disturbances.

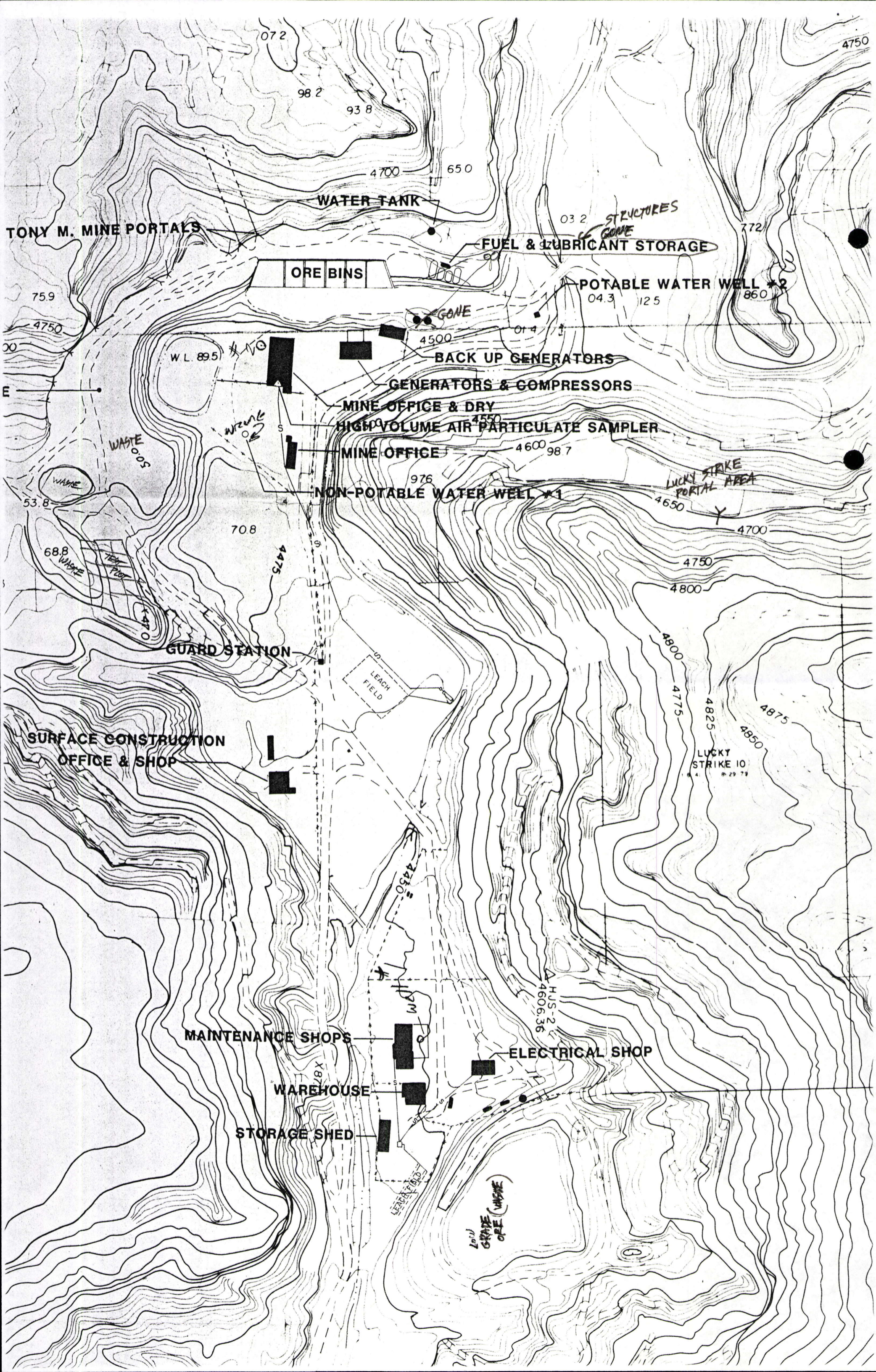
The mine facilities below the ore bins were not visited/inspected. These facilities include the mine office, dry building, generator/compressor building, backup generators, pump house and fire house. The additional facilities visible further down canyon were not visited either. Those facilities included two trailers (at the office & shop location on the map), the maintenance shop, electrical shop, warehouse and storage shed. The pile of material south of the maintenance shop facilities is a low grade ore material which could be considered waste. Associated with the Tony M mine are six proposed ventilation boreholes which include diameters of 18 inches, 36 inches, and 5 feet. The boreholes and mine water impoundment areas were not visited. The Frank M site was not visited. Photographs were taken of the various mine facilities and areas visited.

The operator wishes to replace the current reclamation surety for this site. Mr. Dearth informed us that it will be difficult for them to acquire a surety bond in excess of \$100,000. The purpose of this inspection was (1) to determine how accurate the Division's reclamation estimate was and (2) to account for any reclamation performed at the site. In conclusion, Mr. Dearth agreed to search for records regarding the nature and date of the last mining activities at the Lucky Strike Portal area. The Division was to review the files for similar information and also evaluate the previous reclamation estimate based on what was seen during this inspection. Mr. Winters' work experience at these sites was very beneficial throughout the inspection.

jb

cc: Al Dearth, Nuclear Fuel Services - 545. Flora Way Golden Co 80401  
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M1701.INS





ATTACH TO INSPECTION MEMO FOR 5-3-95

